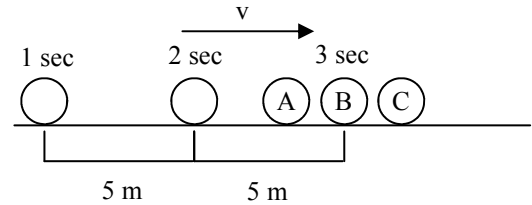


## 2008 Linear Motion 9

- If a car is moving 8 m/s and turns a corner without changing speed, is it accelerating?
  - Why or why not?
- An object is moving to the right, so its velocity is + or -?
  - If it has a positive acceleration is it speeding up or slowing down?
  - If it has a negative acceleration (and still moving to the right) is it speeding up or slowing down?

- The graphic shows an object moving to the right. A, B, and C show where it *COULD* be after 3 seconds.
  - \_\_\_\_\_ Where will it be if it has a positive acceleration?
  - \_\_\_\_\_ Where will it be if it has a negative acceleration?
  - \_\_\_\_\_ Where will it be if it has no acceleration?



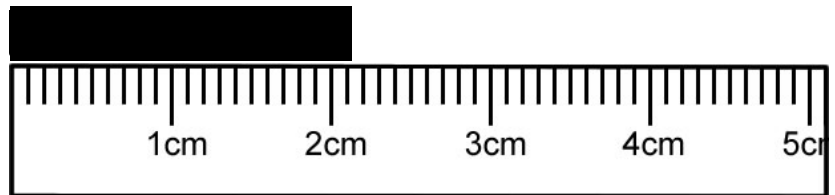
- Write the following in scientific notation.
  - 13,000,000
  - 0.0000034

- Write out  $8.5 \times 10^5$

- The slope of a position vs. time graph tells you what about the object?
  - The y-intercept of a position vs. time graph tells you what about the object?
  - The slope of a velocity vs. time graph tells you what about the object?
  - The y-intercept of a velocity vs. time graph tells you what about the object?

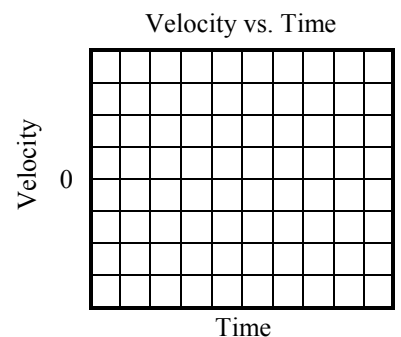
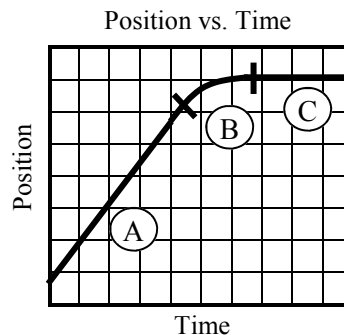
- Using notes: "Metrics" and the estimation notes on "Scientific Notation":

- How many mm is the object?
- How many cm is the object?
- How many meters is the object?
- How many micrometers is the object?

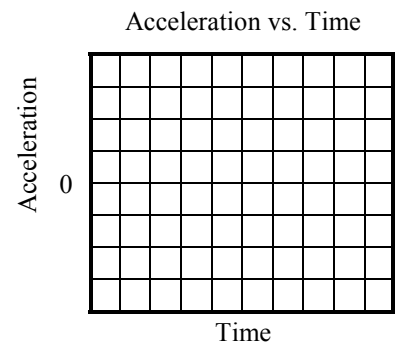
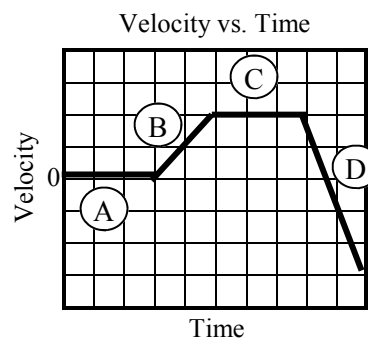


- Translate the position vs time graph to the velocity vs. time graph.

- An object is dropped and falls for 1.5 seconds before it hits the ground. How high was the desk?



- Translate the velocity vs. time graph to the acceleration vs. time graph.



*Study the review, the other homeworks, and other worksheets. I'm available for help in my room or on the web.*